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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,185	01/21/2004	Kia Silverbrook	MPA14US	2071
24011	7590	04/04/2006	EXAMINER	
SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, NSW 2041 AUSTRALIA			GOLDBERG, BRIAN J	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

A

<b>Office Action Summary</b>	<b>Application No.</b> 10/760,185	<b>Applicant(s)</b> SILVERBROOK ET AL.	
	<b>Examiner</b> Brian Goldberg	<b>Art Unit</b> 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. in view of Lin et al. (US 20040012661).

3. Regarding claim 1, Silverbrook et al. disclose "at least one printhead module (10 of Fig 2) comprising at least two printhead integrated circuits (18 of Fig 4), each of which has nozzles formed therein for delivering printing fluid onto the surface of print media (pg 5 ln 19), and a support member (16 of Fig 7) supporting and carrying the printing fluid for the at least two printhead integrated circuits; and a casing (14 of Fig 3) comprising a support frame (64, 94 and 32 and 76 about 16 of Fig 2) for supporting the at least one printhead module and an elongate...cover portion (28 of Fig 6) which is removably attached to the support frame (pg 4 ln 12-13)." Thus Silverbrook et al. meet the claimed invention except the cover being metallic.

4. Lin et al. teach that metal, plastic, or rubber is interchangeable material for a cover (Par [0026] ln 5-7). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to make the cover metallic. One would have been motivated to so modify the plastic, rubber cover of Silverbrook et al. with a metallic cover for the benefit of making the cover more durable.

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5. Regarding claim 2, Silverbrook et al. disclose "drive electronics (54 of Fig 7) are provided for driving the at least two printhead integrated circuits of the at least one printhead module via an electrical connector (48 of Fig 8), the drive electronics comprising at least one controller for controlling operation of the at least two printhead integrated circuits (pg 5 ln 22, 28-32); and the support frame (64 of Fig 2) further supports the drive electronics (see Fig 2)."

6. Regarding claim 6, Silverbrook et al. disclose "the at least one printhead module (10 of Fig 2) is formed as a unitary arrangement of the at least two printhead integrated circuits (18 of Fig 4), the support member (16 of Fig 7), at least one fluid distribution member (26 of Fig 7) mounting the at least two printhead integrated circuits to the support member, and an electrical connector (48, 22 of Fig 8) for connecting electrical signals to the at least two printhead integrated circuits (pg 3 ln 17); and the support member has at least one longitudinally extending channel (80 of Fig 7) for carrying the printing fluid for the printhead integrated circuits and includes a plurality of apertures (42 of Fig 7) extending through a wall of the support member arranged so as to direct the printing fluid from the at least one channel to associated nozzles in both, or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members (see Fig 7 and pg 5 ln 19)."

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. in view of Lin et al. and further in view of Watchko et al. (US 6965071).

8. Silverbrook et al. in view of Lin et al. disclose the claimed invention as set forth above with respect to claim 1. Silverbrook et al. further disclose "wherein the cover

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portion (28 of Fig 6) is arranged to shield the drive electronics from electromagnetic interference by enclosing the drive electronics.” Thus Silverbrook et al. in view of Lin et al. meets the claimed invention except “the cover portion being formed of aluminium.”

9. Watchko et al. teach a cover portion used for shielding being interchangeably formed of aluminum, plastic, or other polymeric material. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to form the cover of aluminum. One would have been motivated to so modify Silverbrook et al. in view of Lin et al. for the benefit of providing effective EMI shielding, as stated by Watchko et al.

10. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. in view of Wakabayashi et al. (US 5615085). Silverbrook et al. disclose the claimed invention as set forth above with respect to claim 2. Thus Silverbrook et al. meets the claimed invention except “wherein the cover portion comprises fin portions arranged on an outer surface thereof...so as to be adjacent the drive electronics” and “wherein the cover portion further comprises a heat coupling material portion arranged on an inner surface thereof.”

11. Wakabayashi et al. teach “wherein the cover portion comprises fin portions arranged on an outer surface thereof (col 13 ln 53-61 and col 14 ln 1-6)” and “wherein the cover portion further comprises a heat coupling material portion arranged on an inner surface thereof (102 of Fig 1 and col 10 ln 4-9).” It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide fin portions and a heat coupling material. One would have been motivated to so modify Silverbrook et al. for the benefit of improving heat dissipation of the electronics by

increasing the efficiency of heat removal with the heat coupling material and increasing the surface area with the fins, which more efficiently cools the electronics, as stated by Wakabayashi et al.

### ***Response to Arguments***

12. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

13. Regarding claim 1, the cover portion (28 of Fig 6) of Silverbrook is elongate, as it appears to be longer than it is wide. While the applicant claims there is no motivation to modify the cover of Silverbrook because the electrical connections would be shorted out, that would only occur if the connections touched the cover and as it appears in figure 6, the cover is not touching the connections, since it appears that the piece indicated by 46 is separate from the cover 28 and only 46 appears to be close to touching the connections.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BJG

March 23, 2006

**Binh Nguyen**  
**Primary Examiner**  
**Technology Center 2800**